resources and ecosystem dynamics of specific varieties and if so, to what extent ;

(b) what are the varieties of fish whose ecosystem dynamics is being studied and what are their economic implications ;

(c) whether Government propose to acquire or construct some more such research vessels ; and

(d) whether coast benefit studies of such vessels have been made ?

THE MINISTER OF STATE IN THE DEPARTMENT OF OCEAN DEVELOPMENT (SHRI EDUARDO FALEIRO) : (a) and (b) Yes, Sir.

The Fisheries Oceanographic Research Vessel SAGAR SAMPADA has undertaken more than 110 cruises in the Exclusive Economic Zone of our country in different regions and different seasons. During the exploratory fishing cruises, many areas having potential resources of deep sea forms such as Indian Drfift Fish, Bulls Eye, Pink Perch, Ribbon Fishes, Carrangids, other forms of perches, deep sea Prawns, Deep Sea Lobster and Cuttle Fish have been identified. Many fishery related parameters, such as Hydrography, Phytoplankton, Zoo Plankton production in different ecological realms, such as inshore, offshore, deep sea and oceanic regions including the seas around Lakshadweep and Andaman & Nicobar Islands have been observed during the cruises for understanding the dynamics of production and distribution of Mesoplagic Demersal Resources.

(c) and (d) The present strength of the vessel is not sufficient keeping in iew the area of operation of our EEZ. A proposal is under formulation to acquire a multipurpose oceanographic research vessel which can also be used for fishery oceanographic surveys. A cost benefit analysis will be undertaken while processing the proposal.

Survey of Exclusive Economic Zone

1475. DR. SHRIKANT RAMCHANDRA JICHKAR : Will the PRIME MINISTER be pleased to state :

(a) whether cobalitiferrous crust on submerged plateaus in India's Exclusive Economic Zone have been fully or partially surveyed ;

(b) if so, what is their extent and economic significance ;

(c) in what part of EEZ they are located ;

(d) whether the Oceanographic Research Vessel "Sagar Kanya" is alone sufficient to do the survey or we require some more such vessels ; and

(e) if so, by when Government would procure more such vessels ?

THE MINISTER OF STATE IN THE DEPARTMENT OF OCEAN DEVELOPMENT (SHRI EDUARDO FALEIRO) : (a) to (c) The covalt rich manganese encrustation normally occurs on ancient underwater seamounts where upwelling takes place and biological activity also is significant. So far no such work on the cobalt rich manganese encrustation has been undertaken by the concerned Institutions in the EEZ of our country.

(d) and (e) The present strength of the vessels is not sufficient in view of the area of ooperation in the EEZ. A proposal is under formulation to acquire a multipurpose Oceanographic Research Vessel which could also be used for non-living resource survey.

HSurvey and study of sulphide Mineralisation

1476. DR. SHRIKANT RAMCHANDRA JICHKAR : Will the PRIME MINISTER be pleased to state :

(a) whether the survey and study of the Sulphide mineralisation in Carlsberg Ridge and in the Andaman Sea has been made;

(b) if so, what are the environmental impliations of its mining ;

(c) if not, by when the survey and study is likely to be completed ;

(d) whic hreserach vessel is engaged in doing this suavey;

(e) how can one research vessel be engaged in so many diverse activities like survey of cobaltiferrous crust, coastal zone resources, sulphide maineralisation survey etc. ; and

(f) whether it is also a fact that because of this, justice is not being met to any of the survey ?

THE MINISTER OF STATE IN THE DEPARTMENT OF OCEAN DEVELOPMENT (SHRI EDUARDO FALEIRO) : (a) No, Sir.

(b) to (d) Do not arise.

(e) It is not a fact that only one research vessel is utilised for diverse survey activities. ORV Sagar Kanya, a research vessel of Department of Ocean Development, carries out survey work as per the approved programme of Cruise Plannng Committee of the Department in the Exclusive Economic Zone of the Country. Besides this, GSI is having three research vessels for the survey in the Exclusive Economic Zone of India The annual programme of survey activity is examined and finalised by a sub-Committee constituted by the Secretary, Ministry of Mines, Government of India, and the same is approved by a full Committee of the Central Geological Programming Board chaired by Secrtetary, Mines.

(f) It is not a fact. Other survey works are going on according to approved schedules.

Survey of coastal zone resources

1477. DR. SHRIKANT RAMCHANDRA JICHKAR : Will the PRIME MINISTER be pleased to state :

(a) whether the survey of the coastal zone resources has been completed ;

(b) if not, to what extent it has been made ;

(c) what are the major coastal zone resources of our country ;

(d) what are their economic implications and

(e) what are the environmental implications of their mining ?

THE MINISTER OF STATE IN THE DEPARTMENT OF OCEAN DEVELOPMENT (SHRI EDUARDO FALEIRO) : (a) and (b) A preliminary survey of resources in the coastal zone has been completed. Detailed survey of coastal resources is in progress.

(c) The fishery resources include fin fishes, prawns and mussels. The mineral resources include the following :

(1) Inmenite
(2) Rutile
(3) Leucoxene
(4) Zircon
(5) Monazite
(6) Garnet
(7) Sillimanite

(d) The fishery resources in the coastal area up to 50 metres depth are being fully exploited. The fishery resources beyond 50 metres depth are under-exploited. Location of fishing groups beyond 50 metres depth in the surveys conducted will help in increased fish production and also reduce the dependence on these resources in the waters below 50 metres depth. As far as minerals are concerned, as similar minerals are available on land also, the economic implications of exploitation of offshore minerals will be evaluated after complete assessment of these resources.

(e) Environmental impact assessment studies will be conducted while taking up projects for expoitation of minerals in the sea.

Training to civil servants and executives of PSUs

1478. SHRI SURESH PACHOURI : Will the PRIME MINISTER be pleased to state :

(a) whether Government are considering to revived its policy for providing trainting to the Civil servants and to the executives of the PSUs ;

(b) if so, what necessary amendments are being made in this regard ;

(c) whether the Finance Minister has discussed the outline of the change at a recent meeting of the Chief Secretaries of various States and UTs ;

(d) if so, whether the Minister of Personnel Public Grievances and Pensions has asked for status report on each administrative institute ;

(e) if so, whether this will be discussed at a higher level meeting called by the Minister ;

(f) if so, whether any concrete proposal in this regard has been worked out ; and

(g) if so, the details of the same ?